

Title (en)

METHOD OF MANUFACTURING A SEMICONDUCTOR DEVICE AND SEMICONDUCTOR DEVICE OBTAINED WITH SUCH A METHOD

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER HALBLEITERVORRICHTUNG UND MIT EINEM SOLCHEN VERFAHREN HERGESTELLTE HALBLEITERVORRICHTUNG

Title (fr)

PROCEDE DE FABRICATION D'UN DISPOSITIF A SEMI-CONDUCTEURS ET DISPOSITIF A SEMI-CONDUCTEURS OBTENU SELON CE PROCEDE

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Application

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Abstract (en)

[origin: WO2007000690A1] Method of manufacturing a semiconductor device and semiconductor device obtained with such a method. The invention relates to a method of manufacturing a semiconductor device (10) with a substrate (11) and a semiconductor body (12) of silicon which is provided with at least one semiconductor element, wherein in the semiconductor body (12) a semiconductor region (1) of a material comprising a mixed crystal of silicon and another group IV element is formed which semiconductor region (1,111) is buried by a silicon layer (2). According to the invention on a surface of the semiconductor body (12) a mask (3) comprising an opening (4) is provided, the semiconductor region (1,111) of the material comprising a mixed crystal of silicon and another group IV element is selectively deposited in the opening (4,44), the mask (3,33) is at least partly removed, and subsequently the silicon layer (2) is deposited uniformly on the surface of the semiconductor body (12). In this way various high-quality devices can be obtained. The semiconductor region (1,111) preferably comprises SiGe and may form part of the device (10) or may be sacrificed in order to form an insulating or conducting region in the device (10).

IPC 8 full level

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